

**NATURAL RESOURCES CONSERVATION SERVICE
Wyoming
CONSTRUCTION SPECIFICATIONS
FOR
LINED WATERWAY OR OUTLET
(Rock)**

(Owner/Operator)	(Project/Title)
<p>GENERAL</p> <p>Installation shall be in accordance with a design and plan approved by the responsible technician. Details of construction shown in the design and plan but not included here shall be considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations and applicable stream alteration permits.</p> <p>EXCAVATION AND SHAPING</p> <p>The channel shall be sloped and shaped to the lines and grades as shown on the drawings or staked in the field. Excavation for cutoffs and anchoring of the lining shall be as shown on the drawings and staked in the field. All excavated material not used in the channel shaping shall be disposed of at sites designated on the drawings or flagged in the field and/or approved by the Technician and Landowner.</p> <p>COMPACTED FILLS</p> <p>Compacted fill shall be placed to the lines and grades as shown on the drawings. Fill shall be placed in 6-inch thick maximum lifts and compacted to the density of the surrounding material.</p>	<p>POLLUTION CONTROL</p> <p>The Contractor shall take appropriate measures to minimize the chance of any oil or fuel spills from entering the stream. Equipment parking, maintenance and refueling will be away from the edge of the stream.</p> <p>LOOSE ROCK RIPRAP</p> <p>Rock shall be equipment placed to the lines and grades as shown on the drawings or staked in the field.</p> <p>Placement of the rock on slopes shall be done in a manner that will not cause separation of the small and large stones. The finished surface shall not have pockets of finer materials, which would flush out and weaken the protection. Sufficient hand placing and chinking shall be done to provide tightly interlocked surface. Rock riprap gradation and weight shall be as specified in ADDITIONAL SPECIFICATIONS or as shown on the drawings. The middle rock dimension will be used in determining rock size. The rock shall be angular to subangular in shape, sound, dense, and durable stone, and free from earth and rock dust, or other foreign material. The least dimension of the rock fragment shall be not less than one-third the greatest dimension of the rock fragment.</p>

FILTER

Filter aggregate when specified on the drawings shall be spread uniformly on the prepared subgrade to the depth shown on the drawings. The filter shall be sand, gravel, or crushed stone or mixtures thereof. The gradation shall be as specified in ADDITIONAL SPECIFICATIONS or as shown on the drawings.

ADDITIONAL SPECIFICATIONS

GEOTEXTILE FABRIC

Geotextile fabric when specified on the drawings shall be a non-woven fabric of the Class (weight) and Apparent Opening Size (AOS) as specified in ADDITIONAL SPECIFICATIONS or shown on the drawings.

GROUTED ROCK LINING

Rock shall be clean, sound, dense durable stone free from earth and foreign material of the size and gradation specified on the drawings. Unless otherwise specified, concrete for the lining shall have $\frac{3}{4}$ inch maximum size aggregate with a 6 to 8 inch slump, 2000 psi-28 day compressive strength meeting the requirements of ASTM C 94.

During the placement of the concrete the rock shall be barred/rodded as needed to assure that the concrete penetrates at least one-third the depth of the lining thickness.

VEGETATION

When specified on the drawings vegetative plantings shall be installed at the spacing, depth and of the size as shown as the rock riprap excavation and rock placement is completed.